

REMARKS

Claims 1-3 and 6-16 are presently pending in the application. Claims 4 and 5 have been cancelled and new claims 9-16 are now presented for examination.

In the Office Action, claim 1 was object to because of lack of antecedents with respect to the recitations of "respective locations", "the underside", and "the bottom". Appropriate antecedent basis is now provided and accordingly the Examiner is requested to withdraw the objection.

Claim 1 stands rejected under 35 U.S.C. 102(e) as being anticipated by *Orcutt et al.* (U.S. 6,452,238). Claims 2-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Orcutt et al.* in view of *Ohara et al.* (U.S. 5,668,033).

With respect to the Sec. 102 rejection of claim 1, *Orcutt et al.* discloses a MEMS wafer level package, shown, for example, in Figure 5 including an electronic device and associated signal lines located on a silicon base wafer and having a cavity surrounding the electronic device. The base and cover wafers are joined together by solder material to provide a sealed encapsulated device. Adjacent the encapsulated device is a plurality of vias which extend through the cap wafer at predetermined locations.

Applicants' claim 1 is now amended to recite a method which patentably distinguishes over *Orcutt et al.* and is directed to but not limited to a structure such as shown in Figure 6 of applicants' drawings and includes applying at least one initial layer of metal in and on an undersurface of the vias, applying at least one initial layer on the top surface of the base wafer around the periphery of each location and applying at least one initial layer of metal on an undersurface of the cover wafer around the periphery of each location. Metallizing at least one intermediate layer of metal is provided at the periphery of each circuit location on the base and cover wafers as well as the contact between the via pads and the signal lines so that the number and thickness of the metal layers at the periphery of each location is substantially equal to the number and thickness of the metal layers at the vias and signal lines whereby a planar alignment of the base and cover wafers is ensured when joined together.

It is respectfully submitted that this method is neither shown nor suggested by *Orcutt et al.*, and therefore claim 1 is deemed to be in condition for allowance.

With respect to the Sec. 103 rejection of dependent claims 2-8, claims 4 and 5 have been cancelled; however, metal layers of titanium, indium and nickel are now included in the structural features of newly presented dependent claims 10-14, with the base and cover wafers being claimed in claim 9 comprised of quartz.

Ohara et al. is cited for the teaching for the use of titanium for improving a glass substrate and a gold film. However, it does not teach applicants' use of quartz.

The Examiner alleges that the selection of pressure, temperature and time parameters is considered merely routine authorization by a person skilled in the art. It is submitted that this is only conjecture. It is well settled that a rejection cannot be based on speculation. See In re Werner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA, 1967) wherein the Court stated:

A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.

It may be that the Examiner has equated capability with obviousness. This, however, is an improper type of rejection as set forth in Ex parte Lavengood, 28 USPQ 2<sup>nd</sup>. 1300, 1301 (BPAI, 1993), wherein the Board stated as follows:

At best, the Examiner's comments regarding obviousness amount to an assertion that one of ordinary skill in the art would have been able to derive at the applicant's invention because he had the necessary skills to carry out the requisite process steps.

This is an inappropriate standard for obviousness.

Accordingly, claims 6, 7, and 8 and 9-14 are deemed allowable.

Also these claims depend from an independent claim which is deemed to

be an allowable independent claim and therefore also become allowable by virtue of their dependency.

Claim 15 comprises a new independent claim further defining a method for making wafer scale packages where the base and cover wafers are comprised of quartz, including vias in the cover wafer and where initial layers applied to the base and cover wafer as well as the vias are comprised of titanium and where a plurality of intermediate metal layers including adjacent layers of indium and nickel are located between the base and cover wafers and between the vias and signal lines and where the number and thickness of the metal layers at the periphery of each location is substantially equal to the number and thickness of metal layers at the vias and the signal lines for ensuring planar alignment of the base and cover wafers when joined together with specific parameters of pressure, sensor and time prior to dicing, which is now claimed in dependent claim 16 which depends from claim 15.

It is submitted that none of the references cited and relied upon taken either singly or in combination, teach or suggest the subject invention as now claimed, nor would such be obvious to one skilled in the art without improper hindsight provided by applicants' own disclosure.

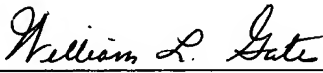
Accordingly, all of the claims now present in the application are deemed to be in condition for allowance and therefore further and favorable action is requested.

With respect to the question raised with respect to the joint inventors, it should be noted that the subject matter of the various claims was commonly known at the time the invention was made

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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